

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

LIONRA TECHNOLOGIES LTD.,

v.

FORTINET, INC.,

Case No. 2:22-cv-00322-JRG-RSP

(Lead Case)

LIONRA TECHNOLOGIES LTD.,

v.

CISCO SYSTEMS, INC.,

Case No. 2:22-cv-00305-JRG-RSP

(Member Case)

LIONRA TECHNOLOGIES LTD.,

v.

HEWLETT PACKARD ENTERPRISE
COMPANY, et al,

Case No. 2:22-cv-00319-JRG-RSP

(Member Case)

LIONRA TECHNOLOGIES LTD.,

v.

PALO ALTO NETWORKS, INC.,

Case No. 2:22-cv-00334-JRG-RSP

(Member Case)

**PLAINTIFF'S RESPONSE TO CISCO SYSTEMS, INC.'S RULE 12(b)(6)
MOTION TO DISMISS FOR INELIGIBILITY OF U.S. PATENT NO. 7,916,630
UNDER 35 U.S.C. § 101**

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I. INTRODUCTION

Defendant Cisco Systems, Inc.’s (“Cisco”) derogation of United States Patent No. 7,916,630 (“the ’630 Patent”) should be rejected by this Court. Dkt. No. 21 (“Mot.”). The claims of the ’630 Patent are directed to an improvement in network functionality that solved the technical problem of how to know the status of the components in a distributed system without high message volume (’630 Patent at 2:4-9) or redundant central coordination. *Id.* at 2:25-28. The ’630 Patent overcomes a problem specifically arising in the realm of computer networks, and the claims are not impermissibly abstract under governing Federal Circuit law.

The inventions claimed in the ’630 Patent are inspired by the HiPath IP telephony system developed by technology leading Siemens AG (the prior assignee) and the inventors who worked on developing that technology and related concepts.¹ As such, the claimed inventions are not abstract but rather comprise patentable machines and related processes that provide solutions to problems arising from the use of distributed computer servers in a real-world communications network. The specification makes clear that the claimed inventions improved existing distributed communication networks in the mid 2000s by solving technical problems that were unique to that technology area. *See Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014) (claims are patent-eligible as a matter of law if “they improve an existing technological process”).

The claims at issue here are analogous to those addressed by the Federal Circuit in *Uniloc USA, Inc. v. LG Elecs. USA, Inc.* in that they are directed to a patent-eligible improvement to computer functionality. *See Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1307-08

¹ “Siemens is a global innovator focusing on digitalization, electrification and automation for the process and manufacturing industries, and is a leader in power generation and distribution, intelligent infrastructure, and distributed energy systems. For nearly 175 years, the company has developed technologies that support multiple American industries including manufacturing, energy, healthcare, and infrastructure.” *See* <https://new.siemens.com/us/en/company/about.html>.

(Fed. Cir. 2020) (reversing district court’s Rule 12(b)(6) ruling on patentability). In *Uniloc*, a data field was added to inquiry messages to reduce latency and increase network efficiency. The inventions claimed in the ’630 Patent also increase network efficiency by organizing the distributed components in a logical ring in which each component monitors only its respective neighbor, reducing network message volume and resource requirements. In both cases, “the claimed invention changes the normal operation of the communication system itself to ‘overcome a problem specifically arising in the realm of computer networks.’” 957 F.3d at 1308 (quoting *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257-58 (Fed. Cir. 2014)). The *Uniloc* decision confirms that such claims are not directed to an abstract idea and that Cisco’s motion should be denied.

II. BACKGROUND

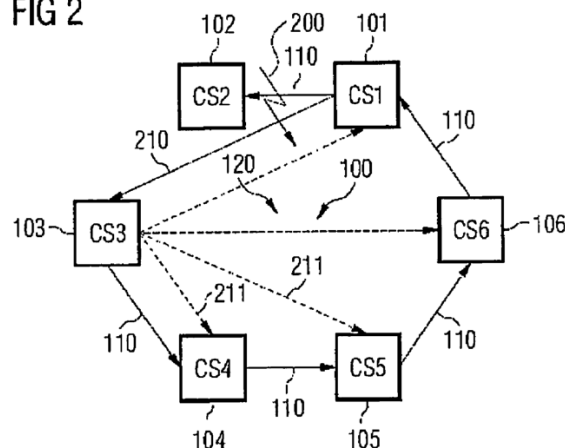
The ’630 Patent addresses and solves a problem that arises from the very nature of computer networks—that “there is as a rule a requirement for all the components of the distributed system to have a knowledge of the status or condition of every other component in the system (monitoring).” ’630 Patent at 1:20-23. However, prior art techniques for doing so, such as the “Ping-Pong” mechanism, generate an undesirably high message volume on the order of “ $O(n^2)$ (n: number of system components)” that “may restrict the power or capacity and/or the error detection capability/speed of the system.” *Id.* at 2:5-9. Under the “Ping-Pong” mechanism, “each component of the distributed system sends every other component of the system a Ping message—and receives (back) corresponding Pong responses when the other components in question are in an operative or online condition.” *Id.* at 1:53-57. However, using this technique, a network with 6 or 30 communication servers could produce as many as “ $(6*5*2)/60$ s=1 message per second or $(30*29*2)/60$ s=29 messages per second respectively.” *Id.* at 2:14-15. An alternative technique,

using a central coordinator, “can only be implemented robustly with difficulty because the central coordinator of the distributed system must be maintained in redundant form.” *Id.* at 2:26-28.

The '630 Patent teaches that the disadvantages presented by these prior art systems can be overcome by organizing the components of the distributed system in a logical ring structure, whereby “[e]ach component of the system monitors only its respective neighboring component in the logical ring structure.” *Id.* at 2:36-47. According to the inventions of the '630 Patent, “[o]nly messages of the order $O(n)$ are required in order to monitor the status or the condition of all the (distributed) components in the distributed system. In this situation, there is ... no central entity, the central coordinator, which needs to be maintained robustly.” *Id.* at 2:57-61.

The '630 Patent provides a detailed description of a preferred embodiment by reference to the HiPath IP telephony system, a communications network of communications servers. *Id.* at 5:1-4. Because each communication server needs to know about a failure (i.e., the current condition) of any other servers in the network, *id.* at 5:7-9, the servers in the HiPath IP telephony system “are organized in a logical ring structure 120 (102 follows 103, 101 follows 102, 106 follows 101, 105 follows 106, 104 follows 105, 103 follows 104).” *Id.* at 5:14-16. “[E]ach communication server 101 to 106 then monitors 110 only its respective successor in the ring structure 120 (102 monitors successor 101; 103 monitors successor 102;)” *Id.* at 5:18-21.

FIG 2



“In the event of failure 200 of a successor (cf. FIG. 2, 102 in the event of failure 200), the respective (preceding in the ring 120) communication server (cf. FIG. 2, 103) informs all the other communication servers about this (cf. FIG. 2, 211).” *Id.* at 5:22-25.

This detailed description corresponds closely to the independent claims of the '630 Patent as demonstrated by Claim 1:

1. A method for monitoring a system condition of a network with distributed components organized in a **logical ring structure**, comprising:

each component in the system **monitoring only a single respective neighboring component** among said distributed components that is a predecessor or successor of said each component in the logical ring structure to determine a current condition of the respective neighboring component; and

each component in the system **informing all other components** of the system about the current condition of the respective neighboring component **when the current condition corresponds to at least one predefined condition.**

Id. at 6:25-38 (emphasis added). Similarly, independent Claim 14 recites a computer-readable medium with a computer program that, when executed, performs the method of claim 1, and independent Claim 15 recites a network apparatus in which the method of claim 1 is executed.

The dependent claims also correspond closely to the patent's detailed description which, while plainly not limited to the HiPath IP telephony system, does describe relevant aspects of the patented invention by reference to this actual system. *See, e.g., id.* at 5:26-29 (“The monitoring 110 of a successor server 101 to 106 in the ring structure 120 takes place here, in other words in the case of the HiPath IP telephony system 100 further developed as described herein, by way of a ‘leasing’ method.”).

Specifically, Claim 2 corresponds to the aforementioned failure 200, claims 3-6 recite aspects of the described leasing method, *see id.* at 5:30-37, claims 7-10 recite utilization of the described “Inform All” mechanism and “Acknowledgement” messages, *see id.* at 5:38-53, claim

11 relates to a mechanism by which each component is aware of the global status of the network, *see id.* at 5:54-57, and claim 13 specifies that the claimed network can be a stationary communication network or a telephone network such as the HiPath IP telephony system. *Id.* at 7:18-19. Accordingly, the '630 Patent and its claims correspond to a real-world and tangible communications system (*i.e.*, HiPath IP) created by Siemens and are not based on abstract subject matter.

III. LEGAL STANDARD

Section 101 of the Patent Act describes the scope of patentable subject matter as encompassing “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. To determine patent eligibility under § 101, courts conduct a two-step analysis. *See Alice*, 573 U.S. at 217-18. First, the court must determine “(1) whether the claim, as a whole, is ‘directed to’ patent-ineligible matter—here, an abstract idea—and (2) if so, whether the elements of the claim, considered individually or as an ordered combination ‘transform the nature of the claim’ into a patent-eligible application.” *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018).

IV. ARGUMENT

A. *Alice* Step 1: The Asserted Claims Are Patent Eligible.

The '630 Patent claims are all directed to patentable subject matter and satisfy *Alice* Step One. At Step One, the question is “what the patent asserts to be the ‘focus of the claimed advance over the prior art.’” *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1292 (Fed. Cir. 2020) (quoting *Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1168 (Fed. Cir. 2019)). During this inquiry, the focus is on the claim language considered in the light of the specification. *Id.* (quoting *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016)). The analysis must not indulge in

“overgeneraliz[ations]” resulting in “abstractions” “untethered” from the claim language. *Enfish*, 822 F.3d at 1337. The analysis “depends on an accurate characterization of what the claims require and of what the patent asserts to be the claimed advance. The accuracy of those characterizations is crucial” to the analysis. *TecSec*, 978 F.3d at 1294.

Here, the ’630 Patent is directed to a tangible improvement to computer network functionality through the use of a logical ring monitoring system—not a generic improvement in computing. *See, e.g., CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1368 (Fed. Cir. 2020) (holding “the claims ‘focus on a specific means or method that improves’ cardiac monitoring technology; they are not ‘directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.’”) (citation omitted). Notably, the ’630 Patent solved the technical problem of identifying the operating status of each of the components in a distributed network without high message volume or redundant central coordination. *See, e.g., ’630 Patent* at 2:4-9, 2:25-28. Cisco’s characterization of the ’630 Patent claims is untenable and oversimplifies the claims to reach a level of generality needed to force the claims into the abstract ideas exception to § 101 patentability. *See Enfish*, 822 F.3d at 1337 (“[D]escribing the claims at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.”). Cisco’s motion should be denied.

i. The ’630 Patent claims are directed to a tangible improvement to computing networks

In cases involving improvements to computing technology and networks, the Federal Circuit has relied upon two inquiries: (1) “whether the focus of the claimed advance is on a solution to a problem specifically arising in the realm of computer networks,” and (2) “whether the claim is properly characterized as identifying a specific improvement in computer capabilities or network functionality, rather than only claiming a desirable result or function.” *TecSec*, 978 F.3d at 1293.

Here, a close inspection of the '630 Patent claims and specification establishes that “the asserted claims [a]re directed to specific implementations of improved devices and systems and not abstract ideas that used computers as tools.” *Google LLC v. EcoFactor, Inc.*, No. 21-CV-03220-HSG, 2022 WL 1443235, *3 (N.D. Cal. May 6, 2022) (discussing *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143 (Fed. Cir. 2019) and *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358 (Fed. Cir. 2020)); *see also* *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1347 (Fed. Cir. 2017) (holding patents claimed patentable subject matter where “[t]he claims specify a particular configuration of inertial sensors and a particular method of using the raw data from the sensors....”).

The '630 Patent claims inventions that are directed to a specific improvement in network functionality. The '630 Patent identifies specific problems that arise in the context of distributed computer networks. *See, e.g.*, '630 Patent at 1:18 – 2:28. For example, the '630 Patent explains that “there is as a rule a requirement for all the components of the distributed system to have a knowledge of the status or condition of every other component in the system (monitoring).” *Id.* at 1:20-23. The '630 Patent further explains that prior art techniques, such as using a “Ping-Pong” mechanism, has the disadvantage of generating “high message volume,” “which may restrict the power or capacity and/or the error detection capability/speed of the system.” *Id.* at 2:4-9. Additionally, another known disadvantage of the prior art approaches is that the system “can only be implemented robustly with difficulty because the central coordinator of the distributed system must be maintained in redundant form.” *Id.* at 2:25-28. To that end, the problems of high message volume generated by monitoring and the need for redundancy of a distributed system’s central coordination for robust implementation specifically arise in the realm of computer networks. *See, e.g., id.* at 1:18 – 2:28.

The '630 Patent provides specific solutions to these problems by organizing the components of the distributed system in a logical ring structure, whereby “[e]ach component of the system monitors only its respective neighboring component in the logical ring structure.” *Id.* at 2:36-47. To that end, “[i]f a component determines a condition of its neighboring component, which condition corresponds to a predefinable condition, *then it informs the other components* of the system about the determined, predefined condition of its neighboring component.” *Id.* at 2:49-53 (emphasis added). As a result, “[o]nly messages of the order $O(n)$ are required in order to monitor the status or the condition of all the (distributed) components” in the system and “no central entity, the central coordinator, [] needs to be maintained robustly.” *Id.* at 2:57-61. In other words, the heart of the invention can be summarized as follows:

[E]ach component of the system monitors only its respective neighbor, in other words its respective neighboring component, in the ring. In the event of failure, as in the case of an inoperative and/or offline condition, of the neighbor the component informs all the other components about this.

Id. at 2:65 – 3:3. These inventive concepts are directly reflected in the independent claims.

Notably, the '630 Patent quantifies its improvement over prior art systems. *See, e.g., Koninklijke KPN N.V.*, 942 F.3d at 1151 (noting “the claims sufficiently capture the inventors’ asserted technical contribution to the prior art by reciting how the solution specifically improves the function of prior art error detection systems”). For example, the '630 Patent explains that in a prior art distributed system 29 monitoring messages per second were necessary or sent whereas with the claimed invention a monitoring operation can occur approximately once per second (30/29) messages per second. '630 Patent at 6:5-11. “As a result, a system with 30 servers can under the same network load be monitored 60 times more quickly and recognize an error. The more servers a system contains, the better this factor becomes.” *Id.* at 6:12-15. This is a specific

improvement in network functionality that is embodied in the claims of the '630 Patent and is a tangible improvement under *Alice* Step One.

In accordance with the benefits discussed in the specification, the claimed features regarding (1) monitoring of respective predecessor or successor neighboring components and (2) informing all the other components in the system about the condition of the respective neighboring component are key aspects of the invention and far from conventional. Notably, during the prosecution of the '630 Patent, the “monitoring” and “informing” aspects were a key distinction over the prior art. *See CosmoKey Sols. GmbH & Co. KG v. Duo Sec. LLC*, 15 F.4th 1091, 1097 (Fed. Cir. 2021) (“Under *Alice* step one, we consider ‘what the patent asserts to be the ‘focus of the claimed advance over the prior art.’”) (citation omitted); *CardioNet*, 955 F.3d at 1374 (explaining the “analysis at *Alice* step one involves examining the patent claims in view of the plain claim language, statements in the written description, and the prosecution history, if relevant.”). Specifically, the Patent Office allowed all of the currently asserted claims of the '630 Patent over the prior art in light of the applicant’s explanation that the asserted prior art did not disclose these features. Ex. 1 (Apr. 26, 2010 Applicant Remarks); Ex. 2 (Oct. 27, 2010 Applicant Remarks); Ex. 3 (Nov. 23, 2010 Notice of Allowance). For example, the applicant explained that the prior art “discusses that every member of a group exchanges heartbeats with two neighbors in two directions around the ring.” Ex. 1 (Apr. 26, 2010 Applicant Remarks) at 7. Unlike the prior art, however, the applicant explained that '630 Patent contemplates that “each component in the system **monitoring only a single** respective neighboring component.” *Id.* (emphasis in original). The applicant also maintained that the prior art did not teach the '630 Patent’s requirement that “each component in the system inform[] all other components of the system about the current condition of the respective neighboring component.” *Id.*; *see also* Ex. 2 (Oct. 27, 2010 Applicant

Remarks) (same). As such, the '630 Patent's claimed logical ring monitoring system is far from conventional in the specific context of computing networks. *See, e.g., Coop. Ent., Inc. v. Kollektive Tech., Inc.*, 50 F.4th 127, 135 (Fed. Cir. 2022) (“[U]seful improvements to computer networks are patentable regardless of whether the network is comprised of standard computing equipment.”). Thus, the '630 Patent claims are not directed to conventional networks and do not merely implement an abstract idea on conventional networks.

ii. Cisco improperly oversimplifies the patented inventions

Cisco's characterization of the '630 Patent claims is untenable, and its analogy to the “buddy system” is inapt. Mot. at 1, 7-8. Cisco's analogy to the “buddy system” necessarily disregards two common features of the “buddy system.” First, that the buddies are paired such that there is only reciprocal monitoring. Second, that, as a rule, only the adult or central coordinator is notified, rather than the entire group.

More importantly, Cisco's characterization disregards at least two limitations appearing in every claim. First, that the components are “organized in a logical ring structure” and, second, that each component is “informing all other components” about a neighboring component when its “condition corresponds to a predefined condition.” As discussed above, these limitations are relevant to the network performance improvements provided by the '630 Patent inventions. It is only by ignoring these limitations that Cisco can impermissibly overgeneralize the claims at issue as merely directed to an abstract idea of monitoring by instructing each component to monitor a single neighbor. Mot. at 1.

Because Cisco ignores limitations and does not accurately characterize the claims or fully address the advances in network functionality obtained from the claimed inventions, Cisco's analysis is fundamentally flawed. The claims of the '630 Patent should be read as a whole,

considering *all* of the claimed elements and the interactions between them. *See CardioNet*, 955 F.3d at 1371 (“Generalizing the asserted claims as being directed to collecting, analyzing, and reporting data is inconsistent with our instruction that courts ‘be careful to avoid oversimplifying the claims’ by looking at them generally and failing to account for the specific requirements of the claims.”) (citation omitted). But Cisco overgeneralizes the ’630 Patent claims as merely monitoring only one neighboring component without regard for the claimed logical ring structure (which necessarily limits the neighboring component to a predecessor or successor in the ring) or the requirement of informing *all other components* of the monitored condition. As discussed above, these limitations are instrumental for providing the benefits of reduced message volume and resource requirements, and they cannot be disregarded.

Cisco’s characterizations of the dependent claims are further inevitably flawed by the crucial error of overgeneralization made with the independent claims. Moreover, Cisco’s efforts to stretch the buddy system analogy disregard the focus of the claims on network functionality and addressing problems specifically arising in the realm of computer networks. *Mot.* at 8.

With respect to claim 2, an offline condition and an online condition are specific to communication servers, such as those found in the HiPath IP telephony system. ’630 Patent at 5:26-37 (describing how a server in the HiPath IP telephony system is characterized as “offline.”).

With respect to claims 3-6, “[t]he monitoring 110 of a successor server 101 to 106 in the ring structure 120 takes place here, in other words in the case of the HiPath IP telephony system 100 further developed as described herein, by way of a “leasing” method.” *Id.* at 5:26-29. The disclosed leasing method entails “Alive” messages as claimed. *Id.* at 3:43-61, 5:30-37.

Claims 7-9 recite specific aspects of how other components are informed in the network using an “Inform All” method and “Acknowledgement” messages that are specific to

communications networks. *Id.* at 3:62-4:8, 5:43-53. Cisco's analogy of yelling to a group completely fails to address the individual nature of "Acknowledgement" messages, further demonstrating its inapplicability to the claims at issue. Mot. at 8.

Claim 10 is directed to a further refinement of the "Inform All" method used in the HiPath IP telephony system whereby communication server status can be obtained about a non-neighboring component without the disadvantages of the prior art techniques. *Id.* at 4:14-18, 5:46-48.

Claim 11 is directed to a technique for local knowledge of global status in the distributed system. *Id.* at 5:54-57. With respect to claims 10 and 11, Cisco's analogy of group check-in and list keeping is closer to a prior art central coordinator than the claimed invention, further demonstrating its inapplicability to the claimed inventions. Mot. at 8.

Claim 12 reiterates the logical ring structure, which is simply not addressed by Cisco's analogy to alphabetic order or standing in a line. *Id.* Claim 13 specifies that the claimed network can be a stationary communication network or a telephone network such as the HiPath IP telephony system. *Id.* at 7:18-19. This refinement further establishes that the claims are directed to non-abstract improvements to the functionality of a network and not just an abstract idea for which computers are invoked merely as a tool.

As discussed above, the dependent claims are directed to patentable aspects related to the HiPath IP telephony system disclosed in the '630 Patent that are described with particularity and not using merely functional language.

Independent claim 14 recites a computer-readable medium with a computer program that, when executed, performs the method of claim 1, and independent claim 15 recites a network

apparatus in which the method of claim 1 is executed. These independent claims are not directed to an abstract idea for the same reasons that independent claim 1 is not directed to an abstract idea.

Cisco's characterization of the '630 Patent specification suffers from the same infirmities as its characterization of the claims. Mot. at 9. Cisco ignores the requirement of a logical ring structure and misleadingly asserts that the only limitation is that "the claims recite each component monitoring only a single neighboring component...". *Id.* This overgeneralization, ignoring technological claim limitations such as the logical ring structure, is a flawed analysis condemned by the Federal Circuit. *See TecSec*, 978 F.3d at 1293 ("[W]e have reiterated the Supreme Court's caution against 'overgeneralizing claims' in the § 101 analysis, explaining that characterizing the claims at 'a high level of abstraction' that is 'untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.'"). The claimed combinations in the claims of the '630 Patent comprise a measurable improvement in network functionality that is described in the patent specification. They are not abstract under *Alice* Step One. Cisco's motion should be denied in its entirety.

B. *Alice* Step 2: The '630 Patent Claims Inventive Combinations.

Because none of the Asserted Claims are directed to an abstract idea, the Court need not reach *Alice* Step Two. In any event, the claims are additionally patent-eligible under Step Two because they recite an inventive combination of components and functions, and the pleadings do not establish that this combination was routine and conventional.

"[W]hether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact," which Cisco must "prove[] by clear and convincing evidence." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). "Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art." *Id.* at 1369. "The mere fact that something is

disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.” *Id.* Thus, “[t]he inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art.” *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016). Indeed, even a known combination is not necessarily routine and conventional.

The claims here are also eligible under Step Two because they recite a new communications system network in which, e.g., 30 servers can be monitored and an error recognized approximately 60 or more times more quickly than in the prior art with the same network load. ’630 Patent at 6:5-15. This is accomplished by a novel and non-obvious combination of limitations directed to a method by which each component is monitored without requiring a central coordinator or high message load that would negatively impact network functionality. As extensively detailed above, the dependent claims do not cover only abstract limitations and are not properly characterized as insignificant extra-solution activity and routine data gathering steps. To the contrary, the dependent claims are directed to features described with respect to the HiPath IP telephony system.

As set forth above, the specification and prosecution history make clear that the claimed combinations were not conventional. Thus, at a minimum, there are factual disputes related to whether various elements of the asserted claims, alone or in combination, were conventional and well-understood at the time the patents were filed. These are factual questions directly “underlying [] the § 101 inquiry.” *Berkheimer*, 881 F.3d at 1368-69. At the motion to dismiss stage of the case, these types of disputes must be presumed to favor the non-movant (*i.e.*, Lionra). *BASCOM*, 827 F.3d at 1347, 1350.

As established above, each claim is directed to solving technological problems and providing technical improvements through the use of a logical ring monitoring system. Thus, the claims are patent eligible in accordance with *Amdocs* and *BASCOM*. See *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1299 (Fed. Cir. 2016) (finding, under *Alice* Step Two, that the overall ordered combination produced the advantage over the prior art by solving the technological problem at stake); *BASCOM*, 827 F.3d at 1351 (finding, under *Alice* Step Two, that the patent claimed and explained how a particular arrangement of elements was “a technical improvement over prior art ways of filtering such content”).

To the extent the Court finds that Lionra’s complaint does not provide sufficient factual allegations to support the factual inquiry for *Alice* Step Two, Lionra respectfully requests that the Court grant leave to amend the complaint to address the *Alice* Step Two factual allegations. The Court should freely grant leave to amend, and the district court must have a “substantial reason” to deny a request to amend a pleading. Fed. R. Civ. P. 15(a); see also *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1126 (Fed. Cir. 2018) (“refusal to permit an amended complaint was erroneous because at that stage there certainly were allegations of fact that, if Aatrix’s position were accepted, would preclude the dismissal.”); *Lyn-Lea Travel Corp. v. American Airlines, Inc.*, 283 F.3d 282, 286 (5th Cir. 2002). Under these circumstances, granting leave to amend is warranted.

V. CONCLUSION

For the reasons stated above, Cisco’s motion should be denied in its entirety.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that this document is being served upon counsel of record for Defendant on November 14, 2022 via electronic service.

/s/ Drew B. Hollander

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